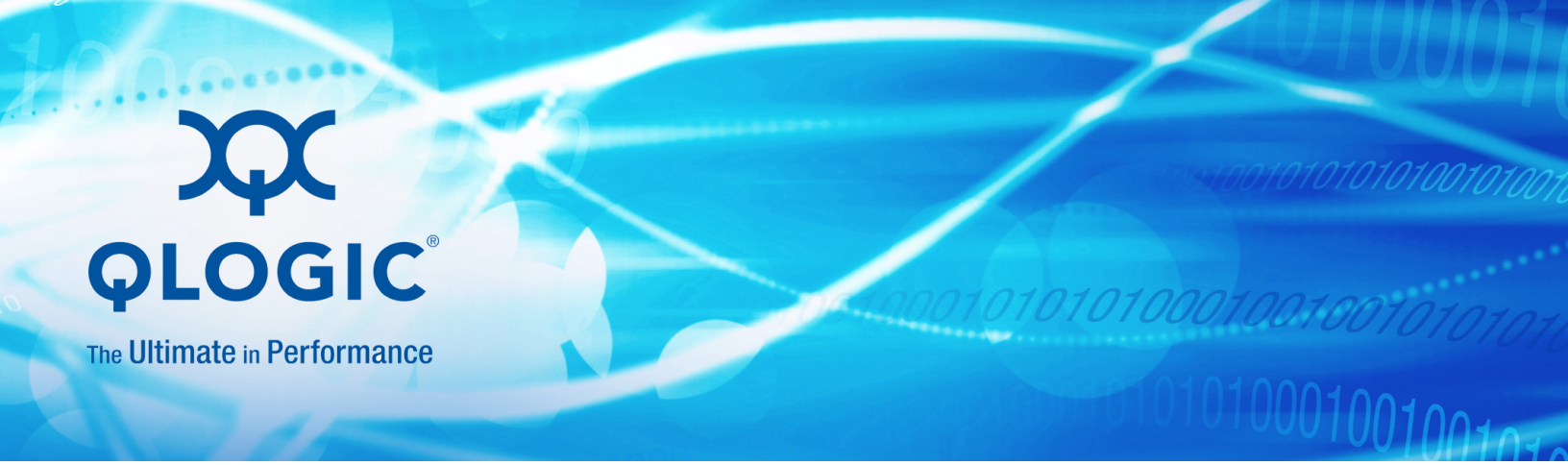

Quick Start Guide

Host Bus Adapter Installation

200, 2300, 2400, and 2500 Series

FC0054505-01 C

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Document Revision History

Revision A, March 31, 2011

Revision B, April 11, 2012

Revision C, March 27, 2014

Changes	Sections Affected
Added model QOE2562 to Table 1-1	"Supported Host Bus Adapters" on page 1
Added new **FCC Rules for QOE2562** section.	"EMI and EMC Requirements" on page 3
Added model QOE2562 to the warranty information.	"Agency Certification" on page 3 "Product Safety Compliance" on page 5
Changed **MIC compliance** to **Korean compliance**.	"CE Mark 89/336/EEC EMC Directive compliance:" on page 3
Added a separate hardware installation procedure for the QOE2562, including a new illustration (Figure 2-2).	"Installing the QOE2562 Adapter" on page 8
Added a note preceding Table A-4.	Appendix A Adapter LEDs
Added Table A-5, defining the LED scheme for the QOE2562, and a note preceding the table.	Appendix A Adapter LEDs

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A Adapter LEDs

1 Introduction

This guide provides details on how to install and configure your new QLogic Host Bus Adapter, including installing the adapter hardware, adapter driver, and QConvergeConsole®, the QLogic Web management utility.

It also lists the Host Bus Adapters covered, provides additional resources, and describes warranty details.

Supported Host Bus Adapters

Table 1-1 lists the QLogic Host Bus Adapters supported by this guide.

Table 1-1. Products Affected

Product Name	Part Number
QLA200	FL0210403
QLE220	EL0210402
QLA2310	FC2310401
QLA234*x*	FC5010409
QLA24*xx*	FC2410401
QLE2460	PX2510401
QLE2462	PX2510401
QLE2464	PX2610401
QLE2560	PX2810403
QLE2562	PX2810403
QLE2564	PX4810402
QOE2562	QM2810401-01

Additional Resources

To obtain the most current drivers, management tools, user instructions, and documentation, download the latest version from the QLogic Web site, **Downloads and Documentation** page:

http://driverdownloads.qlogic.com

For a general overview of QConvergeConsole and installation details, refer to the *Installation Guide QConvergeConsole GUI (2400, 2500, 2600, 3200, 4000, 8100, 8200, 8300, and 10000 Series)* (part number SN0051105-00).

For descriptions and procedures related to using QConvergeConsole, refer to the *QConvergeConsole Help* system.

For details on installing QConvergeConsole CLI and using the commands in it, see the *User's Guide QConvergeConsole CLI (2400, 2500, 2600, 3200, 4000, 8100, 8200, 8300 Series)* (part number SN0054667-00).

Warranty

The following sections contain additional information about the QLogic Host Bus Adapter laser safety, agency certification, and product safety compliance. For warranty details, see the QLogic Web site:

http://www.qlogic.com/Support/warranty.aspx

Laser Safety, FDA Notice

This product complies with DHHS Rules 21CFR Chapter I, Subchapter J. This product has been designed and manufactured according to IEC60825-1 on the safety label of laser product.

Class 1 Laser Product
Appareil laser de classe 1
Produkt der Laser Klasse 1
Luokan 1 Laserlaite

Caution—Class 1 laser radiation when open
Do not view directly with optical instruments

Attention—Radiation laser de classe 1
Ne pas regarder directement avec des instruments optiques

Vorsicht—Laserstrahlung der Klasse 1 bei geöffneter Abdeckung
Direktes Ansehen mit optischen Instrumenten vermeiden

Varoitus—Luokan 1 lasersäteilyä, kun laite on auki
Älä katso suoraan laitteeseen käyttämällä optisia instrumentteja

Agency Certification

The following sections contain a summary of EMC/EMI test specifications performed on the QLogic Host Bus Adapters to comply with radiated emission, radiated immunity, and product safety standards.

EMI and EMC Requirements

FCC Part 15 compliance: Class A (QLE236*x*, QLA24*xx*, QLA2*xx*, QLE2464, QLE2*xx*, QLE25*xx*, QOE2562), Class B (QLA23*xx*, QLE24*xx*)

FCC compliance information statement: This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

ICES-003 compliance: Class A (QLE236*x*, QLA24*xx*, QLA2*xx*, QLE2*xx*, QLE2464, QLE25*xx*, QOE2562), Class B (QLA23*xx*, QLE24*xx*)

- For QLE236*x*, QLA24*xx*, QLA2*xx*, QLE2*xx*, QLE2464, QLE25*xx*, and QOE2562 adapters: This Class A digital apparatus complies with Canadian ICES-003. Cet appareil numérique de la classe A est conformé à la norme NMB-003 du Canada.
- For QLA23*xx* and QLE24*xx* adapters: This Class B digital apparatus complies with Canadian ICES-003. Cet appareil numérique de la classe B est conformé à la norme NMB-003 du Canada.

CE Mark 89/336/EEC EMC Directive compliance:

EN55022:1998/CISPR22:1997 - Class A (QLE236*x*, QLA2440, QLA246*x*, QLA2*xx*, QLE2*xx*, QLE2464, QLE25*xx*, QOE2562)

Class B (QLA23*xx*, QLE2440, QLE246*x*)

EN55024:2010
Immunity Standards
EN61000-4-2 : ESD
EN61000-4-3 : RF Electro Magnetic Field
EN61000-4-4 : Fast Transient/Burst
EN61000-4-5 : Fast Surge Common/ Differential
EN61000-4-6 : RF Conducted Susceptibility
EN61000-4-8 : Power Frequency Magnetic Filed
EN61000-4-11 : Voltage Dips and Interrupt
EN61000-3-2 : Harmonic Current Emission
EN61000-3-3 : Voltage Fluctuation and Flicker

VCCI compliance: Class A (QLE236*x*, QLA2440, QLA246*x*, QLE2*xx*, QLE2464, QLE25*xx*, QOE2562), Class B (QLA23*xx*, QLE2440, QLE246*x*, QLA2*xx*)

AS/NZS CISPR22 compliance: Class A (QLE236*x*, QLA2440, QLA246*x*, QLA2*xx*, QLE2*xx*, QLE2464, QLE25*xx*, QOE2562), Class B (QLA23*xx*, QLE2440, QLE246*x*)

CNS 13438 compliance: Class A (QLE236*x*, QLA2440, QLA246*x*, QLE2464, QLE25*xx*), Class B (QLA23*xx*, QLE2440, QLE246*x*)

- For QLE236*x*, QLA2440, QLA246*x*, and QLE2464 adapters

  This is a Class A product. In a domestic environment, this product may cause radio interference, in which case, the user may be required to take adequate measures.

警告使用者:
這是甲類的資訊產品， 在居住的環境中使用時 ，
可能會造成射頻干擾， 在這種情況下，
使用者會被要求採取某些適當的對策。

Korean compliance: Class A (QLA2310F, QLA2340, QLA2342, QLE236x, QLA24*xx*, QLE2*xx*, QLE2464, QLE25*xx*, QOE2562). Class B (QLE24*xx*, QLA2*xx*)

- For QLA2310F, QLA2340, QLA2342, QLE236*x*, QLA24*xx*, QLE2*xx*, QLE2464, QLE25*xx*, and QOE2562 Host Bus Adapters: Korea Class A Certified

Product Name/Model:	Fibre Channel Host Bus Adapter
Certification holder:	QLogic Corporation
Manufactured date:	Refer to date code listed on product
Manufacturer/Country of origin:	QLogic Corporation/USA

A class equipment (Business purpose info/ telecommunications equipment)	As this equipment has undergone EMC registration for business purpose, the seller and/or the buyer is asked to beware of this point and in case a wrongful sale or purchase has been made, it is asked that a change to household use be made.

- Korean Language Format—Class A

A급 기기 (업무용 정보통신기기) 이 기기는 업무용으로 전자파적합등록을 한 기기이오니 판매자 또는 사용자는 이 점을 주의하시기 바라며, 만약 잘못판매 또는 구입하였을 때에는 가정용으로 교환하시기 바랍니다.

- For QLE24*xx* and QLA2*xx* adapters: Korea MIC Class B Certified

Product Name/Model:	Fibre Channel Host Bus Adapter
Certification holder:	QLogic Corporation
Manufactured date:	Refer to date code listed on product
Manufacturer/Country of origin:	QLogic Corporation/USA

B class equipment (Household purpose info/ telecommunications equipment)	As this equipment has undergone EMC registration for household purpose, this product can be used in any area including residential area.

- Korean Language Format—Class B

B급 기기 (가정용 정보통신기기) 이 기기는 가정용으로 전자파적합등록을 한 기기로서 주거지역에서는 물론 모든지역에서 사용할 수 있습니다.

Product Safety Compliance

UL, cUL product safety compliance: QLA23*xx*, QLE236*x*, QLA24*xx*, QLE24*xx*, QLA2*xx*, QLE2*xx*, QLE2464, QLE25*xx*, QOE2562

UL60950
CSA C22.2 No.60950
Class 1 Laser Product per DHHS 21CFR (J)

Complies with 21 CFR 1040.10 and 1040.11

Use only with listed ITE or equivalent.

73/23/ECC low voltage directive: QLA23*xx*, QLE236*x*, QLA24*xx*, QLE24*xx*, QLA2*xx*, QLE2*xx*, QLE2464, QLE25*xx*, QOE2562

TUV for QLA23*xx*, QLE236*x*, QLA24*xx*, QLE24*xx*, QLA2*xx*, QLE2*xx*, QLE2464, QLE25*xx*:

- EN60950-1:2001
- EN60825-1:1994+A1+A2
- EN60825-2:1994+A

TUV for QOE2562:

- TUV EN60950-1:2006+A11+A1+A12 2nd Edition
- TUV IEC 60950-1:2005 2nd Edition Am 1:2009 CB

2 Installation

This chapter describes how to install and configure the QLogic Host Bus Adapter in three simple steps:

- Step 1. Install the Hardware
- Step 2. Install the Adapter Driver
- Step 3. Install QConvergeConsole®

Step 1. Install the Hardware

To install the adapter hardware, you need to open the computer and locate the appropriate bus slot. If necessary, consult your computer system manual for instructions to remove the computer cover.

CAUTION

Keep the adapter in the antistatic bag until installation. The Host Bus Adapter contains parts that can be damaged by electrostatic discharge (ESD). Before handling the Host Bus Adapter, use standard methods to discharge static electricity. Place the Host Bus Adapter on the bag when examining it. Retain the bag for future use.

Installing the QLA2*xx*, QLA23*xx*, QLA24*xx*, QLE2*xx*, QLE236*x*, QLE24*xx*, and QLE25*xx* Adapters

NOTE

The QOE2562 installation procedure differs from these adapter models; see “Installing the QOE2562 Adapter” on page 8

To install the adapter hardware:

1. Power off the computer and all attached devices such as monitors, printers, and external components.
2. Disconnect the power cable.
3. Remove the computer cover and find an appropriate empty bus slot.

4. Pull out the slot cover (if any) by removing the screw or releasing the lever.
5. Install the low-profile bracket (if required).
6. Grasp the adapter by the top edge and seat it firmly into the appropriate slot (see Figure 2-1).

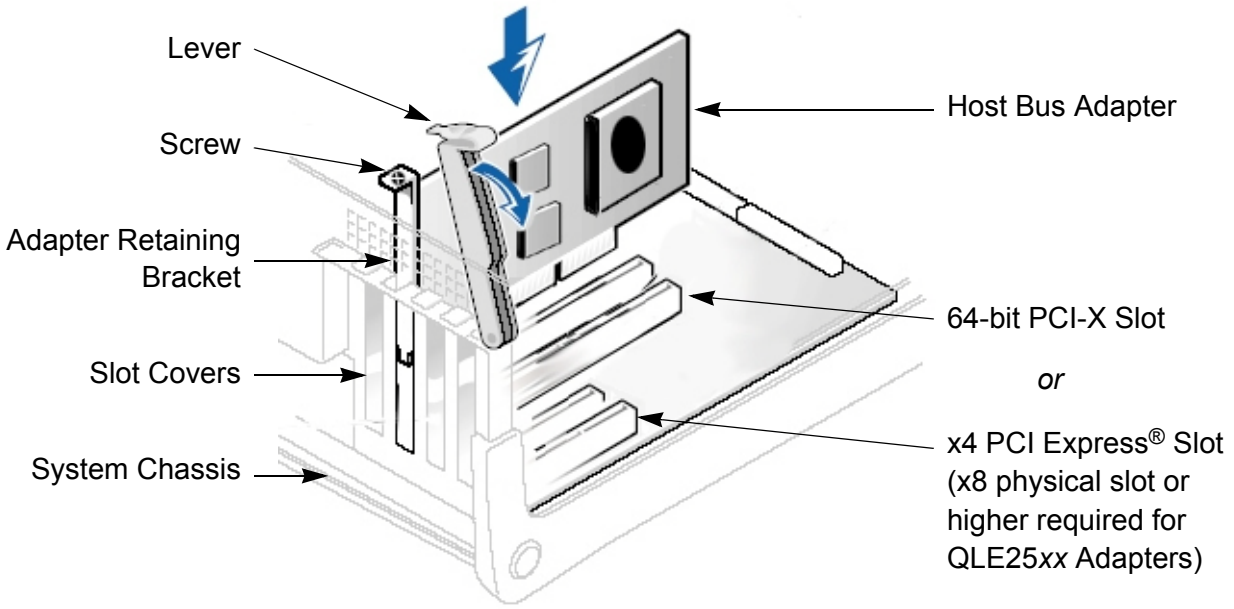

Figure 2-1. Server Motherboard and Slots

7. Refasten the adapter's retaining bracket using the existing screw or lever.
8. Close the computer cover.
9. Plug the Fibre Channel cable into the adapter.
10. Plug in the power cable and turn on the computer.

Installing the QOE2562 Adapter

To install the QOE2562 adapter hardware:

1. Power off the computer and all attached devices such as monitors, printers, and external components.
2. Disconnect the power cable.
3. Remove the computer cover and find an appropriate empty bus slot.
4. Remove the SFP transceivers.

5. Grasp the adapter by the top edge and seat it firmly into the appropriate slot (see Figure 2-2).

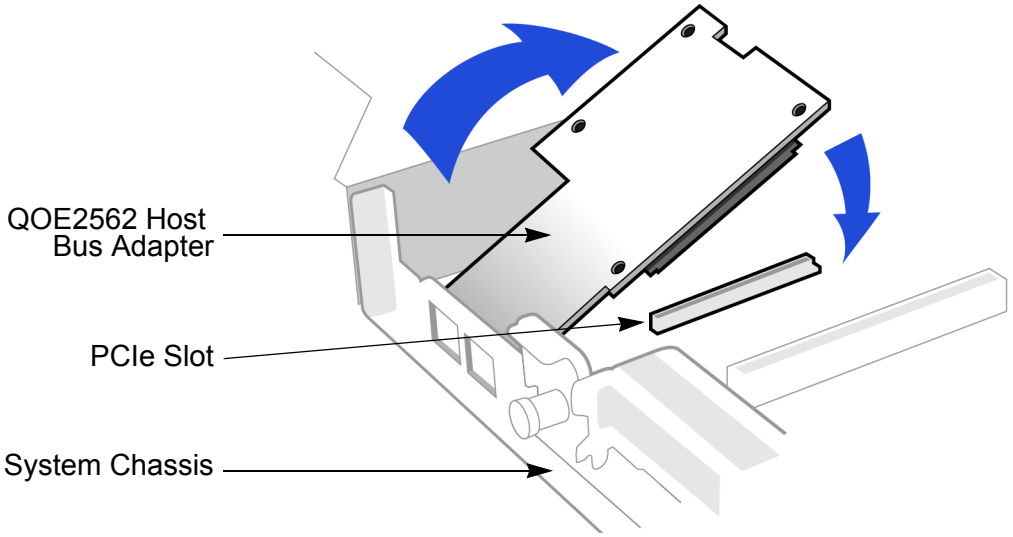

Figure 2-2. Server Motherboard and Slots

6. Replace the SFPs.
7. Close the computer cover.
8. Plug the Fibre Channel cable into the adapter.
9. Plug in the power cable and turn on the computer.

Step 2. Install the Adapter Driver

Drivers for QLogic Host Bus Adapters are available per adapter model, protocol, and OS. Ensure that adapter drivers are always updated to the latest version.

To install the adapter driver:

1. Go to the QLogic **Downloads and Documentation** page:

   http://driverdownloads.qlogic.com

2. In the search box, type the QLogic model name.

   (Alternatively, you can use the guided search option: Select the adapter type, model, and OS, and then click **Go**.)

3. In the search results list, locate and select the appropriate driver for your operating system.
4. View the product details Web page to ensure that you have the correct driver.

5. For additional information, click the **Read Me** and **Release Notes** icons under **Support Files**.
6. Click **Download Now**.
7. Save the file to your computer.
8. Follow the driver installation instructions in the Read Me document.

Step 3. Install QConvergeConsole

QLogic QConvergeConsole tools provide easy management of QLogic Fibre Channel, Intelligent Ethernet, and Converged Network Adapters within SANs. The QConvergeConsole management suite includes a browser-based GUI, a lightweight CLI, and an integrated VMware® vCenter™ Plug-in to provide single-pane-of-glass management.

For details about the components of the QConvergeConsole suite, refer to the *Data Sheet QConvergeConsole* (part number SN0058083-00). The data sheet helps you decide which QConvergeConsole option to choose, based on the available features and utilities, as well as the supported OS, browsers, adapters, and architectures.

To install QConvergeConsole:

1. Go to the QLogic **Downloads and Documentation** page:

   http://driverdownloads.qlogic.com
2. In the search box, type the QLogic model name.

   (Alternatively, you can use the guided search option: Select the adapter type, model, and OS, and then click **Go**.)
3. In the search results list, locate and select the QConvergeConsole version for your operating system.
4. View the product details Web page to ensure that you have the correct QConvergeConsole version.
5. For additional information, click the **Read Me** and **Release Notes** icons under **Support Files**.
6. Click **Download Now**.
7. Save the file to your computer.
8. Follow the installation instructions in the Read Me document.

A Adapter LEDs

This appendix explains the meaning of the LEDs for each of the supported adapters.

Table A-1. QLA2310 and QLA200 Host Bus Adapter LED Scheme

Green LED	Yellow LED	Activity
Off	Off	Power off
On	On	Power
On	Off	Online
Off	On	Link
Off	Flashing	Loss of synchronization
Green and yellow LEDs flashing alternately		Firmware error

Table A-2. QLA234x, QLA210, and QLE220 Host Bus Adapter LED Scheme

Green LED	Amber LED	Activity
Off	Off	Power off
On	On	Power
On	Off	Online
Off	On	Link
Off	Flashing	Loss of synchronization
Alternate flashing	Alternate flashing	Firmware error
Flashing	Off	Beacon

Table A-3. QLA24xx and QLE24xx Host Bus Adapter LED Scheme

Yellow LED	Green LED	Amber LED	Activity
Off	Off	Off	Power off
On	On	On	Power on (before firmware initialization)
Flashing	Flashing	Flashing	Power on (after firmware initialization)
Yellow, green, and amber LEDs flashing alternately			Firmware error
Off	Off	On and flashing	Online, 1Gbps link/I/O activity
Off	On and flashing	Off	Online, 2Gbps link/I/O activity
On and flashing	Off	Off	Online, 4Gbps link/I/O activity
Flashing	Off	Flashing	Beacon

NOTE

Table A-4 reflects the output of QLE25*xx* LEDs when the system is booted to an OS. The LED output when the LEDs are controlled in the *Fast!*UTIL BIOS menus support beaconing only when a port is selected.

Table A-4. QLE25xx Host Bus Adapter LED Scheme

Yellow LED (8Gbps)	Green LED (4Gbps)	Amber LED (2Gbps)	Activity
Off	Off	Off	Power off
On	On	On	Power on (before firmware initialization)
Flashing	Flashing	Flashing	Power on (after firmware initialization)
Yellow, green, and amber LEDs flashing alternately			Firmware error

Table A-4. QLE25xx Host Bus Adapter LED Scheme (Continued)

Yellow LED (8Gbps)	Green LED (4Gbps)	Amber LED (2Gbps)	Activity
Off	Off	On and flashing	Online, 2Gbps link/I/O activity
Off	On and flashing	Off	Online, 4Gbps link/I/O activity
On and flashing	Off	Off	Online, 8Gbps link/I/O activity
Flashing	Off	Flashing	Beacon

NOTE

Table A-5 reflects the output of QOE2562 LEDs when the system is booted to an OS. The LED output when the LEDs are controlled in the *Fast!*UTIL BIOS menus support beaconing only when a port is selected.

Table A-5. QOE2562 Host Bus Adapter LED Scheme

Physical Port		Activity
LED 1	LED 2	
Off	Off	Power off
Green on	Yellow on	Power on (before firmware initialization)
Green on	Yellow on	Power on (after firmware initialization)
Green and yellow LEDs flashing alternately		Firmware error
Green, flashing on activity	Off	8Gbps link and activity
Green, flashing on activity	Off	4Gbps link and activity
Off	Yellow, flashing on activity	2Gbps link and activity

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